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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,831	10/08/2003	Matt Kriesel	C228 1020.4	6602

7590 09/27/2005
Matt Kriesel
Impact Gel Corporation
204 North Washington Street
Melrose, WI 54642

EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/681,831

Applicant(s)

KRIESEL, MATT

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 4, 18 and 24-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Applicant's election of Group I, species of a resilient polymeric material, claims 1-3, , 5-17 and 19-23 in the reply filed on 09/12/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: number 12 in figure 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 12 and 22 are objected to because of the following informalities: the term "polyisocyanates" is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what "prepolymer comprising an isocyanate" is meant? It is known in the art that isocyanate represents a monomer. Does Applicant mean the isocyanate functional prepolymer?

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 5 and 16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Acker (US 5,066,259). Acker discloses a doll structure comprising an envelope comprising a polymer gel substantially surrounding a fiber mat and a skin comprising a top layer and bottom layer as shown in figure 5. The skin is made from a resilient polymeric material (column 4, lines 50-52). The fiber mat has a density less than the polymer gel (claim 1, column 5, lines 17-20). Acker does not disclose a shock- absorbing envelope. However, the doll structure meets all the structural limitations as required by the claims. The envelope comprises a polymer gel surrounding a substrate, a top layer and bottom layer formed from a resilient polymeric material. The substrate has a density less than that of the polymer gel. Therefore, it is not seen that the doll structure would have performed differently than the reinforced polymeric pad of the present invention in terms of shock absorption. Accordingly, Acker anticipates the claimed subject matter.
9. Claims 6, 7, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acker (US 5,066,259) as applied to claims 1 and 16 above, and further in view of Hills (US 4,170,086). Acker does not specifically disclose the doll structure wherein the core 53 is made from a foamed polymeric material. Hills, however, teaches a stuffed toy animal wherein the stuffing material can be made from PVC foam, mat of natural or synthetic fibers (column 6, lines 30-40). Therefore, PVC foam is an equivalent material to fiber mat to add the weight and bulk to the toys (column 6,

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lines 30-40). Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute PVC foam for the fiber mat of Acker since two materials have been shown in the art to be recognized equivalent materials to achieve a given bulk of toys.

10. Claims 8, 11, 13-15, 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acker (US 5,066,259) as applied to claims 1 and 16 above, and further in view of Yates (US 6,027,674). Acker does not specifically disclose the doll structure wherein the polymer gel made from an epoxidized vegetable, a thermoplastic polymer and prepolymer. Yates, however, teaches a cushion material finding application in numerous toys comprising a gel/foam combination made from an epoxidized mineral oil and a blend of SEBS gel with other homopolymer which reads on Applicant's prepolymer. Yates discloses that varying the amount of the plasticized oil to impart the resilient properties of the cushion material is known in the art (column 2, lines 60-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the gel composition as taught by Yates motivated by the desire to provide the toys with excellent resiliency.

Yates does not specifically disclose an epoxidized vegetable oil. The examiner takes Official Notice that it is common and well known in the art to substitute the vegetable oil for the mineral oil because the two materials have been shown in the art to be recognized equivalent plasticizer oil for the gel composition.

Yates does not specifically disclose the amounts of thermoplastic polymer and prepolymer and plasticizer oil. Since the concentration is recognized as a result-effective variable, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical or provides unexpected results. Therefore, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the individual component of the gel composition having an amount in the range instantly claimed motivated by the desire to impart the resilient property of the material. This is in line with *In re Aller*, 105 USPQ 233 which holds discovering the optimum or workable ranges involves only routine skill in the art.

11. Claims 9, 10, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acker (US 5,066,259) and Yates (US 6,555,214), as applied to claims 8 and 16 above, further in view of Burgdorfer et al (US 4,456,642). Yates does not specifically disclose the use of the tin compound as a catalyst. Burgdorfer, however, teaches a gel pad for use in wheelchair cushions wherein the gel composition comprises a tin compound as a catalyst (column 9, lines 10-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ tin compound as the catalyst of the gel composition motivated by the desire to promote the formation of the gel material.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

Hai Vo

**HAI VO
PRIMARY EXAMINER**